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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/002,706  
Filing Date: October 30, 2001  
Appellant(s): SEAMAN ET AL.

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Mark D. Seaman  
Gregory A. Brake  
Robert D. Thompson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 2/14/08 appealing from the Office action mailed 8/16/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,877,134	Fuller et al.	4-2005
6,035,055	Wang et al.	3-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 4,5,7-18 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 4 has the limitation of:

"image meta-data associated with the digital image data created by applying a predefined image analysis algorithm to the digital image data to identify within the image a recognized location at which the image was captured."

This limitation appears to correspond with page 10, last paragraph to page 11, line 14. A pertinent part corresponding to the above limitation states:

"It should also be appreciated that new image file 406 may be used to store other types of information about image data 402, **which need not (emphasis added)** be extracted by a predefined image analysis algorithm 216. For example, image meta-data 404 may also include...information about the location where image 110 was captured. These types of information may be manually input by a user...and stored as image meta-data 404..."

Thus, given this statement from the specification a user and not the claimed predefined image analysis algorithm creates meta-data associated with a recognized location at which the image was captured within an image. How is the predefined image analysis program applied to the digital image to create said recognized location meta-data when the predefined image analysis program need not be used according to one of ordinary skill in the art? From the examiner's understanding a user, not the predefined image analysis algorithm, creates the claimed image meta-data to identify via a search/query within the image a recognized location by a user at which the image was captured.

Additionally, Fuller et al. teaches that metadata corresponding to said GPS is "defin[ed]/creat[ed]...by a user" in col. 9, line 49. Thus, one of ordinary skill in the art will assume a user and not the claimed predefined image analysis algorithm generally creates that metadata associated with location at which the image was captured.

Claims 7,13 and 16 are rejected for similar reasons as claim 4. All dependent claims are rejected for depending upon a rejected base claim.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al. (US Patent 6,035,055 A).

Regarding claim 4, Wang et al. discloses an image file embodied in a computer-readable medium, comprising:

a) digital image data (fig. 3,num. 130,131,132,103) that represents an image;  
and

b) image meta-data (fig. 2, num. 71a) associated with the digital image data created by applying a predefined image analysis algorithm (fig. 3,num. 102) to the digital image data to identify within the image a recognized location (fig. 5,num. 302) at which the image was captured (this portion of the limitation is not given patentable weight due to no support in the specification).

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Regarding claim 5, Wang et al. discloses the image file of claim 4, wherein the image meta-data comprises at least one searchable keyword ("text description" in col. 7, line 52).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4,7-15 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al. (US Patent 6,877,134 B1) in view of Wang et al. (US Patent 6,035,055 A).

Regarding claim 7, Fuller et al. teaches an image capture device, comprising:

a) image capture hardware configured to capture an image ("camera" in col., line 6., line 46.); and

b) logic configured for:

b1) generating a digital representation of the image (fig. 19,num. 1203 outputs or generates the image.), the digital representation comprising image data;

b2) applying at least one predefined image analysis algorithm ("video engine" in col. 4, line 17 performs a "visual analysis" in col. 4, line 15) to the digital representation of the image to identify within the image a recognized location at which the image was captured (this portion of the limitation is not given patentable weight due to no support in the specification),

b21) the at least one predefined image analysis algorithm generating image meta-data ("generates metadata" in col. 4, lines 18,19) corresponding to the recognized location; and

b3) combining (Fig. 19,num. 1700) the image meta-data corresponding to the recognized location with the image data (via num. 1207) to define new image data (Fig. 19,num. 1700 is a new image data or "Combined" in fig. 19,num. 1700 image data.).

Fuller et al. does not teach the claimed recognized location, but teaches that metadata can be "generated" in col. 3, line 62 from "Face identification/recognition" in col. 4, line 4. Thus, Fuller et al. suggest to one of ordinary skill in the art to use face identification because Fuller et al. does not provide a detailed teaching of face identification in order to generate metadata.

Wang et al. teaches face identification as shown in fig. 4,num. 201 as suggested by Fuller et al. and the claimed recognized location in fig. 5,num. 302 in order to generate metadata or "extract content data" in col. 2, lines 24,25.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Fuller et al.'s teaching of face identification with Wang et al.'s teaching of face identification, because Wang et al.'s teaching of face identification "automatically extracts and stores content data of digital images such that effective and efficient search and retrieval of the digital images can be achieved" in col. 2, lines 16-19.

Claim 4 is rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 of a device is equally applicable to claim 4 of a file.



Regarding claim 8, Fuller et al. teaches the image capture device of claim 7, wherein the logic is software ("software" in the abstract) and further comprising a processing device ("mechanisms" in the abstract.) for implementing the logic.

Regarding claim 9, Fuller et al. teaches the image capture device of claim 7, wherein the logic is further configured for storing the new image data (Fig. 19, num. 1700).

Regarding claim 10, Fuller et al. teaches the image capture device of claim 7, further comprising:

a) a network interface device (Fig. 1,num. 150) configured for communication with a communications network (Fig. 1 all numerals except num. 150) and wherein the logic is further configured for:

a1) providing the new image data to the communications network (via servers of fig. 1,num. 130 and 140).

Claim 11 is rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 11.

Claim 12 is rejected the same as claim 5. Thus, argument similar to that presented above for claim 5 is equally applicable to claim 12.

Claim 13 is rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claim 13 except for the limitation of:

a) identifying a digital representation of an image ("Keyframes" in col. 7, line 17 are "extracted" in col. 7, line 17), the digital representation comprising image data.

Claim 14 is rejected the same as claim 5. Thus, argument similar to that presented above for claim 5 is equally applicable to claim 14.

Regarding claim 15, Fuller et al. discloses the method of claim 13, wherein identifying a digital representation of the image involves receiving ("during [a] capture process" in col. 7, line 17) the image data.

Regarding claim 27, Fuller discloses the image capture device of claim 7, wherein the image capture device is a digital camera.

Note that the claimed "digital camera" is not given patentable weight since the claimed "digital camera" is part of the preamble of claim 7 and does not perform an active function or included in a function with respect to the body of claim 7. The body of claim 7 does not need the claimed "digital camera" in order to perform the method of claim 7 or the body of claim 7 is understood without the claimed "digital camera".

7. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al. (US Patent 6,877,134 B1) in view of Wang et al. (US Patent 6,035,055 A) and further in view of Li et al. (US Patent 5,734,893 A).

Regarding claim 16, the combination of Fuller et al. and Wang et al. teaches the claimed image meta-data having been generated by applying a predefined image analysis algorithm to the digital representation of the image to identify a recognized location within the image as addressed in claim 7, above.

Fuller et al. of the combination does not teach the remaining limitations of claim 16, but does teach that meta-data can be used for a "search" in col. 4, line 20. However, Fuller et al. does not appear to teach a method of searching with meta-data and is focused on a "browse" in col. 4, line 21 operation. Since Fuller et al. does not provide a method of searching, Fuller et al. suggests a method of searching with meta-data.

Li et al. teaches a method of searching with meta-data as shown in fig. 2 and the remaining limitations of claim 16 of:

- a) receiving a search query (Fig. 2,num. 202 receives a search query via fig. 2,num. 201) comprising information related to specific image meta-data;
- b) based on the search query, searching one or more image files (fig. 1,num. 105) for the image meta-data specified in the search query; and
- c) identifying (Fig. 2, num. 204 matches which is a form of identifying.) one or more of the image files that comprise image meta-data that matches the image meta-data specified in the search query.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Fuller et al.'s meta-data with the search method of Li et al., because Li et al.'s search method "assist[s] the user...regarding...the...query (Li et al., col. 3, lines 15-17)."

Claim 17 is rejected the same as claim 16c). Thus, argument similar to that presented above for claim 17 is equally applicable to claim 16c).

Regarding claim 18, Li et al. of the combination teaches the method of claim 16, wherein the image meta-data and the search query comprises at least one searchable keywords ("keywords" in col. 1, line 30).

#### **(10) Response to Argument**

##### 112, 1<sup>st</sup> Paragraph Rejection

Appellant state specification, page 10, line 20 to page 11, line 7 has support for this claim language. The examiner disagrees. The highlighted phrase below changes the meaning of the claim language:

"image meta-data associated with the digital image data created by applying a predefined image analysis algorithm to the digital image data to identify within the image a recognized location at which the image was captured."

For example, the underlined term in the phrase "at which the image was captured" changes the meaning of the claimed "recognized location" within the image to include an actual physical location on a map. Thus, the claimed predefined image analysis algorithm is used to identify a location within an image, such as Virginia. Note, a image can only be a collection of digital values and do not represent recognized location information of where images are taken. The claim language implies, if an image of all grass is captured in Virginia and is analyzed by the applicant's algorithm and concludes that the recognized location of the grass image came from Virginia. The Examiner does not see how this is possible from the specification (pages 10, 11). Does the algorithm include GPS within the image that can readily identify the location of a captured image to be in Virginia as the prior art of Fuller et al. (US Patent 6,877,134) similarly teaches in col. 9, lines 48-67 and col. 15, line 64 to col. 16, line 7?

102 Rejection

Appellants state that Wang does not teach each and every feature of claim 4 and did not give patentable weight to “within the image a recognized location at which the image was captured.” The Examiner disagrees. The Examiner provides the following explanation to cover all elements of the claim 4.

Regarding claim 4, Wang et al. discloses an image file embodied in a computer-readable medium, comprising:

a) digital image data (fig. 3,num. 130,131,132,103) that represents an image;  
and

b) image meta-data (fig. 2, num. 71a) associated with the digital image data created by applying a predefined image analysis algorithm (fig. 3,num. 102) to the digital image data to identify within the image a recognized location (fig. 5,num. 302) at which the image was captured (The examiner addressed all broad elements the claim required. However, to further clarify the “within the image a recognized location at which the image was captured” as an image with a face that is recognized via fig. 4, num. 201 where the face is a location on a person’s body from which another location is derived in fig. 5, num. 302 and that such a location such as the face or eyes of a body is at which the image was captured since the face must be present at the location at which the image was captured in order for fig. 3,num. 102 to operate to detect a face). Thus, Wang teaches every feature of claim 4.

Appellants state:

"...the Examiner's failure to identify disclosure of 'applying a predefined image analysis algorithm to the digital image to identify within the image a recognized location at which the image was captured' within the Wang reference constitutes an admission that Wang does not in fact teach or suggest such location recognition."

The examiner, agrees with this statement in part, because the examiner made the best possible interpretation of the claim limitation:

"applying a predefined image analysis algorithm to the digital image to identify within the image a recognized location at which the image was captured"

to correspond to identifying image locations, such as, i.e., eye locations in the face. Contrary, the claim language can identify within the image a geographic place where the image was captured. The examiner concluded that Wang does not teach a geographic place and instead teaches locations within an image such as the eyes. The Examiner used Fuller (US Patent 6,877,134) to teach a geographic location or "GPS" in col. 9, lines 62-67 with an image.

The examiner believes that Wang still does disclose "applying a predefined image analysis algorithm to the digital image to identify within the image a recognized location at which the image was captured" using a broad interpretation of "at which the image was captured" to include a place of capturing images which is an inherent feature of capturing images and constitutes an admission that Wang does in fact teach such location recognition.



Appellants state:

"Wang does not disclose or suggest 'applying a predefined image analysis algorithm to the digital image to identify within the image a recognized location at which the image was captured' "

The examiner disagrees. Based on the Examiner's interpretation of the claim, Wang does disclose applying a predefined image analysis algorithm (fig. 4, num. 203) to the digital image (fig. 4, num. 110) to identify (via fig. 4, num. 203) within the image (fig. 4, num. 110) a recognized location (or "position data" in col. 10, line 42 or a face or eyes via fig. 4, numerals 201 and 202 which are locations of a body) at which the image was captured (since the position data and the face and the eyes have to be present at which the image was captured in order to be processed in fig. 4, numerals 201-203.) Thus, Wang discloses all of the "applying a predefined image analysis algorithm" limitation.

Appellants state:

"Fuller is similarly deficient in disclosing such location recognition and the Examiner again has disregarded that limitation."

The examiner respectfully disagrees since Fuller discloses:

applying a predefined image analysis algorithm (fig. 19, num. 1300: Content Analysis) to the digital image (fig. 19:Video) to identify (via a "request" in col. 16, lines 5-7) within the image a recognized location (or request metadata that describes a location where the video was taken and is encapsulated within a frame as discussed in col. 15, line 64 to col. 16, line 7) at which the image was captured (since the recognized face naturally has to be present at which the image was captured in order to be recognized). Thus, Fuller discloses all of the "applying a predefined image analysis algorithm" limitation.

Appellants state:

"...the Examiner again has improperly refused to address an explicit limitation"

The examiner refused to address the explicit limitation, because the limitation did not make sense given the applicant's disclosure; thus, forcing the examiner to use a broad interpretation of the explicit limitation. The examiner has now fully addressed the explicit limitation with full weight in multiple ways, above.

Appellants state that Fuller nor Weng disclose the applying limitation of claims 7 and 13. The examiner respectfully disagrees for the same reasons of claim 4 as discussed, above.

Appellants state:

"...neither Fuller nor Wang disclose 'searching one or more image files for the image meta-data specified in the search query, the image meta-data having been generated by applying a predefined image analysis algorithm to a digital representation of an image to identify within the image a recognized location at which the image was captured'..."

The examiner disagrees since at least Wang teaches searching one or more image files (via fig. 6, num. 404) for the image meta-data specified in the search query (fig. 6, num. 403), the image meta-data having been generated by applying a predefined image analysis algorithm (fig. 4, num. 201) to a digital representation (fig. 4, num. 110) of an image to identify within the image a recognized location (such as the eyes which is a location of a body) at which the image was captured (since the eyes must be present in order to capture an image with eyes and recognize the eyes via fig. 4,num. 201). Thus, the applied references at least teach the "based on the search query" limitation of claim 16.

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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Dennis Rosario/

Examiner, Art Unit 2624

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